

On former occasions in this Journal (October, 1841, and January, 1843,) we offered some remarks to prove the little chance of benefit to be derived from the method of Hunter in the cure of the species of aœurism under consideration, and the above is another interesting case going to show its inapplicability to them. While on the subject of aneurism, it may not be amiss to notice the renewed efforts that of late have been made by continental surgeons, to take from John Hunter the credit of that operation to which his countrymen and ourselves justly attach his name. They speak of his method of operating as that of Anel; or, as is the case with the author whom we have just noticed, as the method of Anel and of Hunter. True it is, that in 1710, seventy-five years before the date of Hunter's operation, Anel had secured the brachial artery immediately above the sac, in a case of aneurism, but in this he has followed the practice recommended by Paré, and if we look only to priority of date, as establishing a claim to originality in the method, it is to the latter that it is justly due. Anel has no title to the honour of it. Mr. Hunter's claim to merit from the operation, is not alone in having recommended the ligature to be placed above the aneurism, but in having been the first to point out the principles upon which the cure was perfected, and establish fully the truth of his doctrines by observations and experiments, thus directing general attention to the immense benefits to be derived from it.

G. W. N.

**ART. XXVI.—*The Anatomy, Physiology and Pathology of the Human Teeth; with the most approved methods of treatment, including operations, and the method of making and setting artificial teeth; with thirty plates.*** By PAUL B. GONNARD, M. D., M. A. N. S., M. A. P. S., Demonstrator of Anatomy in the University of Pennsylvania, Lecturer on Anatomy, &c. &c. Aided in the practical part by JOSEPH E. PARKER, Dentist. Philadelphia, Carey and Hart, 1844, pp. 227, 4to. pl. 30.

This volume has been offered to the profession, the author informs us in his preface, to supply the demand which has existed for some years, for a plain practical treatment on the subject of the teeth, and particularly on the manufacture of porcelain, which he says, has attained a higher degree of perfection in this country than in any other.

The work is divided into six parts, one of which is appropriated to each of the following subjects:—1st, The history of the teeth and a brief description of the maxillary bones, the alveoli, the articulation of the lower jaw, and the muscles of mastication; 2d, The anatomy of the teeth; 3d, The physiology of the teeth; 4th, Dental pathology and therapeutics; 5th, Dental hygiene; and 6th, Mechanical dentistry. The whole is concluded with a very copious bibliography.

The account of the structure of the teeth is a very valuable one, and is illustrated by some remarkably well executed views of their microscopic structure, taken from Retzius and Gerber, all of which have been "most carefully verified by the author, by means of a very fine microscope in his own possession, and another in the hands of his relative Dr. C. F. Beck, whose liberality has made him the possessor of an instrument, not surpassed at the present time."

The chapter on the origin and development of the teeth, is an extremely interesting one, and contains a full account of Mr. Goodsir's recent investigations.

The causes of decay are very fully stated, and the explanation of the manner in which the ivory of the tooth is destroyed, whilst the enamel seems almost perfect, is the most satisfactory we have seen offered. We transcribe this as a fair specimen of the author's style.

"Where the commencement of decay is external, it is due to a lodgement of some acid or acidifying article of food, (as bread, sugar, cakes, &c., which rapidly undergo the acetoous fermentation, when favoured by the warmth and moisture of the mouth,) in the cavities or deficiencies of the enamel, or in the interstices between the teeth near their necks, where the protecting coat of

enamel is thin. For a view of the spots most favourable for the commencement of this process, see Plates X. and XII., figures 1, 2, 3, 4, on each. The acid generated having reached the surface of the ivory by this minute fissure or hole, commences to act upon its calcareous portion, after neutralizing the alkaline serum which pervades its tubuli. It first dissolves the calcareous contents of the tubuli, and then the earthy portion of the ivory in their interspaces; this is readily corroborated by immersing a section of a tooth in dilute acid, under the microscope, when the contents of the tubuli will be seen to dissolve first with effervescence. Afterwards, the walls will become slowly transparent, indicating the loss of their calcareous ingredient. The animal portion of the ivory, thus deprived of its calcareous matter, becomes soft, and usually either brown or black, and is gradually mixed with and carried off by the saliva. There is no doubt, at present, that the process is hastened after once an open cavity is formed, by the presence of either animal or vegetable parasites in the decayed cavity, which is an exceedingly proper nidus for such forms, and it is even supposed by Henle,\* that this may account for the spread of the decay from one tooth to another. This process is sometimes exceedingly insidious, in consequence of the original opening in the enamel maintaining its primitive size, until great destruction of the ivory has taken place beneath it, when it suddenly breaks in and a cavity is found, where a few hours before none was suspected. In the case where the decay commences on the surface of the ivory under the enamel, the explanation of the process is slightly different. In this case there is no perceptible fissure or hole in the enamel, but a want of union between its hexagonal like columns, a porous condition indicated by a slight and scarcely perceptible opacity. The ivory at the bottom of this porous spot is bathed in an alkaline serum furnished by its pulp, whilst the outside of the tooth is constantly exposed either to the contact of acid or acidifying substances. These are the conditions most favourable to the occurrence of *endosmosis* or transudation, the alkaline matter exuding, and the acid intruding simultaneously. The ends of the tubuli thus bathed in acid, take it up by capillary attraction and carry it in the direction of the pulp, dissolving the calcareous contents of the tubuli, and presenting the appearance, when examined at this stage, represented in Plate IX. figure 20. The progress, after it has thus commenced, is the same as that just described. The course of the tubuli and their capillary attraction for fluid, causes the decay to progress in the direction of the pulp, hence the investment is soon exposed, and inflammation occurring, toothache is the result. The decay, if suffered to progress, destroys first the crown and pulp, sometimes almost without pain, and then becomes nearly stationary, because the sides and not the ends of the tubuli are presented to its exciting cause; the absorption of the acid fluid is therefore very slow, and the rapidity of the decay diminishes in a corresponding ratio."

We must add, that the work is got up in the handsomest manner. The plates are indeed the best specimens of lithography we have seen executed in this country.

**ART. XXVII.—*The Dissector, or Practical and Surgical Anatomy.*** By ERASERUS WILSON, Author of a System of Human Anatomy, &c. With one hundred and six illustrations. Modified and re-arranged by Paul B. Goddard, M. D., Demonstrator of Anatomy in the University of Pennsylvania. Lea & Blanchard, 1844, pp. 444, 12mo.

THE high reputation which Mr. Wilson has acquired by his valuable System of Human Anatomy, will secure a favourable reception for his present work. As modified and re-arranged by Dr. Goddard, it is well suited to the wants of the American student of anatomy, and is an excellent guide for him in the dis-

\* *Encyclopedie Anatomique*, par A. J. L. Jourdan, Tome, viii. page 453.